

MIKE ELIASON/NEWS-PRESS

Another day at the beach!

By HILLARY HAUSER

remember the morning so well. I had gone to the beach for my daily swim in the ocean, this time in Summerland where I had just moved, and these were the days before the problem of leakage from old oil wells had been addressed.

As I waded out through the surf, I was surrounded by oil as well as other gunk, and the sight made me stop in my tracks. I was determined to swim anyway, so I parted the gunk with my hands and went under, a quick dip and then I got out in a hurry.

That was 10 years ago and I thought, what if this becomes the everyday state of the ocean? How would I feel if I could not go regularly into the sea, because of the persistent, obnoxious pollutants we insist on pouring into it? The sea, which has so faithfully fed my soul, provided reefs for me to explore, waves to ride? That morning, 10 years ago, I thought, what if...

Today, the what if is here.

I had been reading notice after notice about local beaches being closed due to bacteria but probably, like a lot of people, I filed it in the back of my mind somewhere. One day I was talking with local surfboard glasser Clyde Beatty, and he was hopping mad about the situation, and gave me one of the questionnaires he was passing out to surfers, requesting information on illness they had experienced after being in the ocean.

That woke me up in a hurry. I got on the phone — to local sanitary district managers, to the Regional Water Quality Control Board in San Luis Obispo, to environmental health officials in both Santa Barbara and Ventura counties, to scientists across the country, to doctors and to surfers. I spoke to people who had experienced health problems as a result of being in the ocean.

I am going to tell you what I found out. ☐ There are a number of Southern California sanitary districts still discharging primary sewage into the ocean, and among these districts is Goleta. They call it "blended secondary," which means primary sewage is mixed into secondarily treated effluent and the whole mess is chlorinated and dechlorinated.

☐ The storm drains of Santa Barbara, as well as the storm drains of most other communities in Southern Cal-

ifornia — and across the United States, for that matter — empty directly into the ocean, without processing. This discharge is in violation of the Clean Water Act of 1972. Down south. Heal the Bay and two other environmental groups are threatening to file a federal lawsuit against the Environmental Protection Agency (EPA) for failing to force the state to comply with the act, in that an assessment of this problem was to have been

done by now. ☐ The creeks that run from the mountains to the sea regularly deliver to the ocean toxic mixtures of farm animal excrement and agricultural poisons, and there is the likelihood that old septic systems built upriver too near these streams are leaching into the streams.

☐ Creeks and rivers that flow into the ocean always travel through canyons and, unbelievably, Santa Barbara's garbage is stacked into an unlined landfill in a Tajiguas canyon. Here, the downhill combination of creek and the leaching of garbage is carrying a violent bunch of toxins into the sea. The talk here is not how to clean this up, dig it up and get rid of the mess, but how to expand the landfill — lined this time — so that it can receive the garbage from other, smaller landfills that are polluting surrounding wells and ground water.

☐ There are still people who cannot be bothered with recycling, who regularly throw tin cans, plastics and newspapers into the trash. Out of sight, out of mind. During the [fi]El Nino[FR] storms of winter, there were even some people upstream who took advantage of raging creeks to throw in trash they had stored up for a while. I know of at least one such dumping firsthand, because my surfing buddy Ken Jamgochian and I picked up all the results at the beach on Mother's Day. Spread from Miramar Beach to Fernald Point there were hundreds and hundreds of burned

What if we couldn't go into the sea?

Is that "what if" already here?



Summerland resident Hillary Hauser covered marine issues for the News-Press from 1981 to 1987. As one of nine writers picked internationally to contribute to the book, "Saving the Oceans" (Key Porter, 1992), her assigned chapter, "The Meeting Place," is about the shoreline of the sea.

tics and other garbage of such homogeny that it was clear to us that all the stuff came from one pile. Last but not least, the ocean is still being referred to as "receiving water." Not as the ocean. Not as the source of unlimited food to feed the world. Not as the source of all life on Earth as we know it. Not as the source of mankind itself.

It is referred to as receiving water. A dump. There was a saying in the 1950s and 1960s that was supposed to be clever but that revealed an astonishing attitude toward the sea: "The solution to pollution is dilution." In other words, take all the waste you do not know what to do with and simply dump it into the sea. It was thought the ocean was capable of diluting and absorbing vast amounts of liquid and solid waste.

Supposedly we have come a long way since those days — in 1972, we passed the Clean Water Act and regional water quality control boards were set up so that ocean dumping could be monitored. In the United States alone, an estimated 8 billion gallons of municipal sewage are discharged each day into coastal waters, so the Clean Water Act was a welcome piece of legislation. The average man on the street took some solace that something was being done about all this, and went to sleep.

In the 30 years I have been writing about the sea, I have put out a lot of ink about the human practice of dumping sewage into the ocean. I have been repeatedly and constantly amazed that this seemed OK with any-body, that under the Clean Water Act, secondarily treated sewage mixed in with the fishes was just fine.

Sewage effluent either gets primary, secondary or tertiary treatment. "Primary" treatment means a certain percentage of solids have been removed from the effluent; "secondary" means the effluent has gone through biological filtration to remove more solids, then chlorinated to kill bacteria (and dechlorinated again, to protect ocean life); "tertiary" means that the effluent has gone through additional processing that renders it suitable for agricultural use (which is wh those "reclaimed water" signs on the 101 freeway are

The subject of sewage disposal in the Santa Barbara Channel became of dire, urgent, paramount interest to me during the six years I covered commercial fishing and other marine subjects for the News-Press. There are five sewage plants in the area that dump their effluents into the Santa Barbara Channel, an important commercial fishing ground.

One day in 1987 an alarming report came across my desk. The report stated that California's seafood might become inedible within three years because of sewage. Issued by the U.S. Office of Technology Assessment (an

investigative arm of Congress), the report stated that harmful bacteria occurring in human waste do not die off quickly, as scientists had long believed. Instead, the bacteria lie dormant until they find a suitable medium in which to grow, such as the stomachs of fish and shellfish, where they return to their previous fully virulent form.

I was angry. I decided to conduct a local sewage survey, to see what our area was contributing to this mess. I learned that Santa Barbara was dumping about 16 million gallons of sewage effluent into the channel each day. I asked the district managers of the five sewage treatment plants exactly what it was they were dumping, and where.

I compared numbers, 1987 and now. The city's El Estero outfall pumped 8 million gallons of secondarily treated sewage into 80 feet of water less than two miles off East Beach. The sewage was chlorinated but not dechlorinated then; both are now. The amount is the same, "because the drought, eight years ago, got people trained about using water," said district manager Victor Acosta. The El Estero plant is also giving tertiary treatment to 1 million gallons of effluent a day, which is used along Cabrillo Boulevard and Las Positas Park.

Tertiary treatment, I learned, can be done by a treatment plant when there is a demand — in other words, economic gain — for it.

The Montecito Sanitary District discharges 1.2 million gallons (an increase of 200,000 gallons from 1987) of secondarily treated sewage into 35 feet of water, 1,500 feet off Butterfly Beach. Summerland processes 150,000 gallons of effluent, both secondary and tertiary, which is emptied into 20 to 22 feet of water 800 feet off the Summerland coast.

Carpinteria dumps 1.6 million gallons a day into 90 feet of water 1,000 feet offshore (up 300,000 gallons from 1987).



RAPHAEL MALDONADO/NEWS-PRESS

and crunched aluminum cans, old tires, plas- Arroyo Burro Beach was closed to swimmers in February.

SEE OCEAN ON G2

How much are we willing to pay to get ocean back where it deserves to be?

OCEAN

Continued from Page G1

Goleta dumps 5 million gallons per day of "blended secondary" effluent one mile off the Goleta/Isla Vista coastline in 90 feet of water. That's a 2 million gallon decrease from 1987, which Goleta Sanitary District Manager Camille Azoury attributes to droughtinduced water conservation practices and low-flow toilets. Part of Goleta's effluent is given tertiary treatment, which is used to water UCSB grounds, Goleta beach lawns and some golf courses.

It seems shocking that Goleta is allowed to pump into the ocean a steady mix of primary and secondary sewage, especially since there was a flap back in 1987 - which I covered for the News-Press - about a local oyster grower's farm being shut down because of fecal coliform bacteria pollution. The oyster grower, Jeff Young, is now a personal injury lawyer whose Santa Barbara practice includes a lot of work for mariculturists, and to me he could not disclose the terms of his settlement with the Goleta Sanitary District. But there was a settlement.

Goleta recently received a renewal of its operating permit from the Regional Water Quality Control Board, and Azoury mailed me a newsletter that explained how the district does "extensive and ocean beach monitoring" to demonstrate that "it fully protects public health and the environment."

The studies, said the newsletter, "allow the District to continue using this treatment process without building a costly new facility with a price tag up to \$24

Under the Clean Water Act of 1972 all coastal sanitary treatment plants were required to upgrade their effluents to secondary. Shortly afterward it was realized it would take time and money for treatment plants to upgrade, so in 1975 a waiver program was initiated, to allow time for these sewage disposal plants to get their plans

It is now 23 years later, and Goleta — and two other treatment plants in California, San Diego and Morro Bay — are still operating under the old waiver.

I called the Regional Water Quality Control Board in San Luis Obispo, to ask why this was so. Brad Hagemann, senior engineer who supervises the San Francisco and Santa Barbara areas, said the waiver was never intended to be a "permanent measure, but interim."

The reason Goleta still operates under the waiver program, Hagemann said, is because it has proven that its effluent "is not bad for the ocean."

Who does the testing? I asked. "The discharger."

Why is there not an independent study? "No money, the whole program is based on self-monitoring," Hagemann said. He explained his agency at one time recommended that Goleta upgrade to full secondary. Gole-

ta appealed, and the state Water Resources Control Board, which oversees nine regional water quality boards in California, overturned the regional board's recommendation.

The federal EPA oversees the waiver program, Hagemann said, but "they don't send guys out in the field. They analyze the data that's been scooped." Not the actual stuff, not the ocean water, but the data that's been assembled by the discharger.

Heal the Bay's legal wranglings with EPA stem from the federal agency's failure to implement a Clean Water Act program that stipulates that California set limits on the amount of pollutants expelled into its 2,500

water bodies by 1979. That's right, 1979. The state Water Resources Control Board has taken the position it wants to implement the program, but lacks staff and funding.

Meanwhile, it overturns the recommendation from the regional board that Goleta Sanitary District upgrade its sewage processing.

g norrors of sewage disposal at sea is the latest realization that bacterial — meaning fecal and total coliform — studies don't give the full picture. There are the viruses to consider, such as those that cause hepatitis and viral meningitis.

- Sue Irwin, who wrote a letter to a local weekly newspaper about her 7-year-old daughter coming down with viral meningitis after playing in Carpinteria Creek. told me that although there's no way to prove it, she is "80 percent certain" her daughter got sick from contaminated water. She did a lot of research, contacting everyone her daughter associated with, her classmates and friends, and no one else was sick. Her daughter, now well, went through some hair-raising days with 103-degree fever, continuous

vomiting and excruciating headaches. "Fecal coliform does not show the true health risk." Jeff Young said. "We should be focusing on viruses. Hepatitis is a virus. The standard fecal coliform test is 40 years old, and biotechnology has come a long way since then.'

Young points out that any solids in the ocean encase bacteria, viruses and pathogens, which don't get released until they disintegrate — or until you run into them while swimming.

If you're not sufficiently alarmed by what you've read so far, listen to this:

Howard Kator, associate professor of marine science at the Virginia Institute of Marine Science, College of William and Mary, said a major ecological problem with sewage is the genetic information it passes along to whomever might encounter it in the sea. The genetic information he is talking about is resistance to antibiotics.

"We've been pumping antibiotics into people and animals," Kator said. "These things can be transmitted through bacteria in the ocean. If they come back as pathogens to animal life or human life, this antibiotic-resistance can make a health problem really difficult to treat.'

Kator said he is involved in an investigation of a mysterious problem on the East Coast, an algal bloom that is killing marine life. Nutrients disposed of in the sea, such as phosphates, sewage and the rest, create a bacteria that eats up oxygen — seen in Santa Barbara as red tide — and the lack of oxygen is responsible for massive fish kills.

Kator was on his way to Tomales Bay to assist shellfish growers having problems with watershed — creek — contamination as well as from failing septic tanks in the area.

"What's needed," Kator said, "is a shoreline survey, go through every house on the coast that's on a septic system, and dye test them."

Which is what a trio of local surfers have been clamoring for at the Rincon. Fed up with the constant closure of the Rincon because of bacterial contamination, Doug DeFirmian, Wayne Babcock and Joel Smith formed Clean Up Rincon Effluence (CURE), sent out hundreds of questionnaires to surfers, asking for information. For some time, and especially during

the winter just past, surfers at the Rincon have reported getting everything from skin rashes that look like fried bacon to 104-degree fevers and diarrhea after being in the water. Hepatitis symptoms are flulike symptoms, so surfers who get flu-like symptoms have been understandably freaked

Rincon Creek is a known polluter, but surfers have long suspected the septic tanks of the homes on Rincon Point. At low tide the stench is terrible, and often you can see some putrid stuff oozing down the right side of the trail as it hits the beach. I have personally seen and experienced both myself.

DeFirmian and his friends collected 3,500 signatures requesting that the mess at Rincon be investigated, and sent the petitions to the Regional Water Quality Control Board, to the Santa Barbara County Board of Supervisors, and to Donna Jordan, mayor of Carpinteria.

CURE's rabble-rousing has gotten the attention of the bureaucrats who received their petition, and I can't help but think it's likely they were shamed into action because DeFirmian, Babcock and Smith told the regional Water Quality Control Board and Carpinteria City Council they will pay for a Rincon study themselves, no matter what it costs.

As I wrote this, the county Board of Supervisors was considering including Rincon Creek in a study of area creeks that includes Mission, Carpinteria and Arroyo Burro. Arroyo Burro, a notorious problem area, has since January suffered two spills of raw sewage from a ruptured city line. The first was in January, and the second came in May from a temporary line installed to bypass the break.

Whether or not Rincon Creek is included in the study, Jeff Young reiterates that the old fecal coliform test is not going to give the total picture anyway. This work, he said, needs to be done with a new DNA-typocean dumping is daily robbing them, and us, of fish millions and millions of every type and species. This ecological decline has happened so gradually we have forgotten that our coastline used to resemble that of the Channel Islands. The average person has come to believe it's always been this way here, and

that way there. The duty of our paid environmental health officials may not be to worry about the blocking of fish populations, but it is certainly the issue of clean water. I decided to further pursue the issue of the questionable septic tanks at Rincon. The worry of surfers has been that the tanks are old, they are shallow (3 to 4 feet underground), they may be leaking into the ground water, they may be leaking into the ocean.

With the Rincon divided in half by the Ventura/Santa Barbara county line, I telephoned the environmental health agencies of both counties, and I also telephoned Mike Higgins, associate water resource control engineer of the Regional Water Quality Control Board.

"We have no information about septics being anything bad," said Dan Reid of the Santa Barbara Environmental Health Division. "We just can't go out and test the septic systems, there's no direct evidence (of a problem).'

The stench at low tide, Reid said, could be caused by an "anaerobic bacteria," which is produced by a lack of oxygen — such as Howard Kator referred to as a part of the algal bloom problem on the East Coast and which produces a stinky hydrogen sulfide smell.

"We've had a couple of little spikes here and there

during the non-rainy season," Reid said — in other words, when Rincon Creek does not flow — "but to tell you the truth, we don't know what that's from. Our tests are inconclusive.'

Reid said the problem of people getting sick from

the shallow water zone of the Santa Barbara Channel - Montecito, into "the receiving water" at 35 feet, and Summerland, into 20 to 22 feet of water — this stuff is going into the surface currents that travel along the coast. In other words, the surf zone. Ryan Dwight, an environmental health science graduate student at UC Irvine who has been conducting extensive studies of beach closures and of surfers getting sick in the water, said effluents should ideally be released below

the thermocline, into deeper water. Dwight also said storm drains emptying directly into the sea are illegal, according to the Clean Water Act. This non-point pollution, as it is called, has become a serious matter, but so far no one seems to be doing anything about it locally except for the local chapter of the Surfrider Foundation, which is stencilling "Do Not Dump" on storm drains.

The Surfrider Foundation is a strong group of ocean-loving activists that has chalked up significant successes when it comes to ocean pollution and saving reefs. Surprisingly, the local chapter is not spending much of its time on the pollution problems at the Rincon. Keith Zandona, who heads the local group, expressed most concern about the Tajiguas Landfill, which is unlined and where a mountain of our garbage is leaching vile polltutants into the sea at Arroyo Quemada.

The county Board of Supervisors has been considering ways to expand the landfill, this time lined, to receive more of our garbage, and Zandona is furious about the idea of putting any more garbage into any canyon next to the sea. There has been talk about trenching the pollutants that are running downstream in Pila Creek — so much for placing garbage in a canyon where creeks always tend to flow to sea — but so far, no one seems to be talking about digging up the mistaken mess at Tajiguas, which of course would

cost a lot of money. Everything costs a lot of money. How much are we willing to pay? Camille Azoury figures it would cost Goleta around \$24 million to upgrade. My surfing pal, Ken, who lives in Goleta, did a little math and figured that with a bond issue such an upgrade might cost a Goleta homeowner something like \$40 per year.

Jerry Smith, the Montecito plant manager, said tertiary treatment is "a waste of money and doesn't do anything for the environ-

Victor Acosta said it would cost \$15 million to \$20 million for the El Estero plant in Santa Barbara to go tertiary, but he was just guessing. "Eventually there will be a law, five to 10 years from now, by the year 2010, that everyone will have to be tertiary," Acosta said. "It's a political issue. Some will be for, some against; \$100 a house? People don't want to pay. We're meeting the requirements. Why pay?"

Maybe we all need to react like Doug DeFirmian and his friends who are willing to pay thousands of dollars for a study of Rincon Creek. Maybe we need to realize our water quality boards and environmental health people are not ever going to be able to do the job we thought they were doing. Maybe we need to realize the Clean Water Act is not working. Everyone seems either stalled by studies, lack of funds, and still, despite all alarms to the contrary, the man in the street is lulled by ease.

I cannot count how many houses I've been in lately where wine bottles go into the trash, along with paper boxes and newspapers, tin cans and toilet paper rolls. All this stuff can be recycled and reused, and yet these people, some of them good friends, say

they "don't have time," or "can't be bothered." The other night I went to a big birthday bash, and when I saw a lot of recyclable things in the trash, all of which would end up in the Tajiguas dump, I called out, asking everyone to set these things aside for recycling. I was looked at like a pariah, a spoilsport! I took as much stuff home as I could, to recycle myself.

In 1969, Santa Barbara zoomed to the front pages of newspapers around the world because of the oil spill, and it zoomed to the front of the environmental movement around the world as a result. What kind of precedent could our town possibly set by insisting and paying for cleaning up our dump, our creeks, our ocean? What would it be to insist that our sewage plants go tertiary, to dig out Tajiguas, to build a holding tank for our storm waters, to rezone the creek areas, and to dye-test every septic tank within coastal

and critical watershed areas?

Money, money, money. As I write this I look at the cover of the current issue of National Geographic, a picture of a little U.S. space thing on Mars. Why are we spending money on Mars or anywhere else in space when our ocean and waterways are hurting like they are? How many times do we refuse to hear, our life depends on the ocean? Our air, our weather, our rain, our water, are directly related to the sea!

When will we begin to respect this? When will we be outraged at its continued use as a dump? When will we stop thinking all of this is someone else's problem? When we all begin to catch hepatitis, cholera or typhoid, to go along with the cancer everyone seems to be getting? When Santa Barbara becomes a scene out of "Jaws," only instead of a great white shark eating up tourists it will be great white

Individually, each one of us needs to get back to basics, use plumber's snakes instead of Drano, old fashioned scrubbing instead of Tilex. We have to get really serious about the things we throw into the trash, and see everything we save as gold. Ultimately, we have to stop creating new children and new pets and take care of the ones already born. The old argument that the real problem lies in countries like China, India or Mexico no longer cuts it. Just because other countries are worse off than we are doesn't mean we don't have to take drastic actions for our-

Maybe it is time to overhaul priorities and the Clean Water Act itself. Maybe we have to cease relying on our agencies and bureaucrats, whose hands are tied by lack of funds and complicated hearings on long-winded studies. How much money and studying do we need to do to learn that the solution to pollution is to stop this dilution busi-

If the government won't do anything about it, how much are we willing to pay to get our ocean back to where it wants to be, where it deserves to be?

Howard Kator, the marine scientist from Virginia, said, "The ocean! People don't understand the sustaining capacity and capability of the sea, the necessity of having clean water. There will be consequences.'

Time and again it has been shown that when pollutants are turned off, a body of water can regenerate in an amazingly short time. Can we do it? It is my prayer.

STEVE MALONE/NEWS-PRESS

Gerry Winant, county ocean water monitoring specialist, takes a sample at the mouth of the creek at Arroyo Quemada Beach.

ing technique used back East, which identifies exactly where the bacteria is coming from, whether raccoon. deer, dogs, cows, people - or septic tanks.

Brad Hagemann said the Regional Water Quality Control Board recognizes the problem with non-point sources - creek pollution from farmers, landowners, failing septic tanks but has no regulatory tools to deal

with the problem. "We can't go in with hammers and big sticks," Hagemann said. "It's obvious you have to keep livestock away from the creeks, get a buffer zone around the creeks, get septic tanks checked out," he said. But for now, the Water Quality Control Board can only con-

cern itself with the bigger picture. The bigger picture, Hagemann said, is the capacity of the ocean to take all the pollutants we're giving it. "How much can we put in?" he said. "The goal of the Clean Water Act is to eliminate all untreated dis-

charge by 1985. I don't know if we can ever do it." Perhaps the biggest problem of dumping anything at sea — whether sewage, storm water, drill muds from oil platforms, or harbor dredging spoils spewed in one big blast down the coast — is the issue of how this stuff blocks the evolution of all sea life. Even if we are not talking about coliform bacteria or toxins or chicken droppings, putting anything into the sea silt, even — blocks the signal molecule system most

sea animals rely on to procreate and survive. Dr. Daniel E. Morse, a molecular geneticist at UCSB, told me about this process when I was a reporter for the News-Press. The millions of animals that live in the sea — abalones, clams, scallops, shrimps, crabs, sea urchins, mussels and a lot of fish

— drift about in their earliest life as plankton. Morse discovered that in each planktonic animal there is a chemical signalling/receptor process that enables it to act at the perfect moment that will ensure its survival. When it is time for an abalone, mussel or urchin to procreate, the female spews forth eggs that drift over a reef colony. In the eggs is a signal molecule, that, when washed by the ocean currents over a male, triggers the male to release its sperm. Proximity takes care of the rest.

When it comes time for each tiny animal to find a suitable home for itself, it has to know exactly when and where to drop down from the current. It would not do for a baby abalone to drop onto a sand bottom, for it needs a rock to clamp onto and algae to eat. To survive, the mussel needs a reef, rock or pier piling, the sea urchin, a bed of kelp.

Miraculously, through the signalling/receptor process, these animals pick up a message from their suitable home. For example, when a red abalone floats over a patch of red algae, it receives a signal from the algae that relays the message: This is The Place. The abalone is triggered to drop down to find rocks and algae, shelter and food.

So it goes for so many sea animals — unless the field of messaging is blocked, and it is blocked consistently and repeatedly and relentlessly by ocean dumping, by sewage, drill muds, harbor dredging and the free release of storm water. In this way, generations upon generations of sea animals - food for the world — remain unborn.

It has always struck me as ironic that our political arrows have been aimed at closing down our independent fishermen, blaming them for the decrease of sea animals, while we remain blind to the fact that our

swimming or surfing in the ocean is only increased because "it's been under-reported in the past." Robert Gallagher, manager of community services with the Ventura County Environmental Health Divi-

sion. said he personally investigated the Ventura County side and found no evidence of contamination. His personal investigation consisted of walking the beach at fairly low tide, and even though a septic tank leak can't be seen if they're taking place 3 to 4 feet underground, Gallagher's conclusion is that he does-

n't think there's any evidence of sewage on the Ventu-"I can't say what's happening," he said. Asked about the source of the high bacteria count at Rincon that keeps it regularly closed, Gallagher said, "I have no idea where it's from. Coliform is ubiqui-

tous. You can find it in vegetation, dirt, wild animals. There are a lot of potential sources. As for initiating dye-testing of septic tanks at Rincon, Gallagher said it would require authorization

from the county Board of Supervisors, possibly court orders and inspection warrants. "It's not indicated," he said. "There's not a public

health hazard out there." That is from a public environmental health agent. even though Rincon has been closed consistently

since the winter rains. Mike Higgins, an associate water resource control engineer at the Regional Water Quality Control Board, said he inspected the Rincon by flying over the site and up the creek, and by walking up the creek mouth.

"What we learned," said Higgins, "is that there are a lot of septic tanks in the area. Yes, people have called us. They (septics) are potential — no, likely sources, because of the density of housing on the Rin-

A dye-study investigation could be conducted, Higgins said, by his agency. "We have the right ... but we would have to come up with the money." The density of houses on Rincon Point makes it "not appropriate for a septic system," Higgins said, but his agency has no plan of action in mind on this matter.

The people I spoke with at the Regional Water Quality Control Board and the environmental health agencies all said rezoning creek areas to establish buffer zones from human and livestock activities is a matter for county boards of supervisors. So is dye-testing of all septic tanks near creeks and in coastal

As for storm drains emptying directly into the sea carrying with a winter flood all the toxins that are picked up from city streets in the torrential flows this, too, is a matter for bureaucrats. John Michaels, manager of the Carpinteria Sanitary District pointed out that in its effort to clean up Lake Michigan, the city of Chicago combined its sewer system with its storm water system. It took a lot of money and a lot of vears to build a huge underground cavern to handle the flow, Michaels said, but Chicago did it.

"The treatment of storm water is definitely on the horizon," Michaels said. "The Environmental Protection Agency has a storm water program for big cities.' Meanwhile, Santa Barbara doesn't have it, and it takes a lot of money to get such a program in place. During a peak storm flow, 2 million gallons of pollut-

ed water can flow into the sea each day. As for the sanitary plants that are discharging into